

SUPPOSED TOXIC EFFECT of ARTIFICIAL VANILLIN.

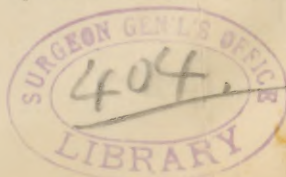
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An idea prevailing amongst confectioners and others using vanilla for flavoring purposes that artificial vanillin possessed poisonous properties, as well as a recent caution to druggists, from good authority, not to employ this article for internal use, based, as I was told, on the fact that a whole family was reported to have been poisoned by eating croissants flavored with a minute quantity thereof, led me to make a series of experiments with a view of testing this very important point, so as to establish its poisonous properties, if such it possessed as well as its physiological effect.

I obtained, to that end, a number of young and healthy rabbits, whose average evening temperature I determined (102.75°F.). Not finding any effect from $\frac{1}{4}$ grain administered to one of them by the mouth, noting carefully temperature, appetite and habit of animal, I soon increased the dose to one-half, three-quarters and one grain, finding again but little change with these doses, certainly none which would show a deleterious action of the vanillin, and noticing only with the larger doses a slight increase in temperature (1° to 2°). I further increased the dose to two grains, which, though slightly elevating the temperature, did rather augment than impair the appetite, and showed a marked increase in the vivacity of the animal. To obviate the possibility of the vanillin not being absorbed in the alimentary canal, I injected hypodermically, at first a quarter and subsequently half a grain of it, dissolved in water, to another of the rabbits, with the same negative result as to its poisonous nature, observing, however, as in the larger doses by the mouth, a decided aphrodisiac effect in the animals.



Encouraged by these negative results on the rabbits, I commenced to take the same myself, first in $\frac{1}{32}$, then $\frac{1}{24}$, $\frac{1}{12}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, and even one grain doses, without experiencing any notable effect, taking again the thermometer as guide in my experiments. An increased dose of two grains proved no more effective, though it appeared to produce a slightly higher temperature in the evening.

Its physiological effect seemed that of a nerve stimulant, manifesting itself in a little accelerated circulation, slight trembling, and the night's rest disturbed by dreams. The increase of appetite was quite perceptible, as well as the absence of gastric disturbances.

To be certain that with slowly increased doses I was not gradually accustoming myself to the use of it I desisted for one week, and then again took it in grain doses without finding bad effects from it. The constant use of it for three weeks gave rise to no symptoms of an accumulative character. That, also, the absence of any symptoms of poisoning in me was not possibly due to an individual immunity on my part, I demonstrated by giving it in grain doses to some of my friends, who experienced no more effect from it than I did myself.

In summing up the results so obtained, I do not hesitate to state that artificial vanillin, such as I obtained from Messrs. Fritzsche Bros., New York, who are the agents for the sale of Dr. J. W. Haarmann's vanillin in this country is, in doses in which it is employed for flavoring purposes, entirely devoid of any toxic effects on the human organism; that in its physiological action it is identical with the natural vanillin as contained in the bean, and that if above-stated poisonous effects were observed in persons eating cream puffs flavored therewith, the poisonous cause must be looked for in other ingredients of the cream puffs, or most probably in the quantity of the confection consumed.

In conclusion, I would state that amongst the many uses of artificial vanillin in pharmacy I have found it most serviceable in preparing the "Trochisci Potassii Chloratis" of the Pharmacopœia, which it leaves beautifully white and of a prominent and agreeable taste of vanilla; and I submit below the formula for them as employed by me.

R	Potassium chlorate,	.	.	.	.	lbs. iv
	Powdered sugar,	.	.	.	.	lbs. xvi
	Vanillin,	.	.	.	.	grs. xv

Mucilage of acacia *q. s.* to make into a mass, which is to be divided into lozenges of 25 grains each.

Philadelphia, November, 1879.